

CLAIMS:

1. A mask comprising:
a circuit pattern to be transferred to a substrate via an optical system; and
an inspection pattern to be used for a measurement of a line width of a pattern transferred to said substrate.
2. A mask according to claim 1, wherein said inspection pattern includes:
a first measurement pattern:
a second measurement pattern to be superimposed on an image of said first measurement pattern; and
an extraction pattern to be used for an extraction of a predetermined image from a superimposed image of said first measurement pattern and said second measurement pattern.
3. A mask according to claim 2, wherein each of said first measurement pattern and said second measurement pattern comprises a plurality of linear patterns which are parallel to each other, and said extraction pattern has a shape which can extract at least one approximate rhombic shape image from an image to be formed by superimposing said first measurement pattern and said second measurement pattern intersecting at a predetermined angle.
4. A mask according to claim 1, wherein said measurement pattern is formed in a separate area to a circuit pattern area in which said circuit pattern is formed.
5. A mask according to claim 1, wherein said measurement pattern is a part of said circuit pattern.
6. A mask according to claim 1, wherein a line width of said measurement pattern corresponds to a line width of said circuit pattern.
7. An exposure method comprising:

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an exposure step of transferring a circuit pattern of said mask of claim 1 onto a photosensitive substrate via an optical system; and

a measurement step of measuring prior to said exposure step, using an inspection pattern which is formed on said mask to be used in said exposure step, a line width of a pattern to be transferred to said substrate.

8. An exposure method according to claim 7, wherein exposure conditions of said substrate are adjusted based on said line width of said pattern measured in said measurement step.

9. A line width measurement method comprising:

a first step of projecting a first linear pattern formed with a predetermined line width onto a predetermined surface;

a second step of projecting a second linear pattern formed with a line width different from that of said first linear pattern, onto an image of said first linear pattern projected onto said predetermined surface, so as to intersect each other at a predetermined angle; and

a third step of measuring a dimension of an overlapped portion of said first linear pattern and said second linear pattern.

10. A line width measurement method according to claim 9, wherein

said first through third steps are used in measuring a minimum line width of a circuit pattern to be projected onto a photosensitive substrate via an optical system;

one line width of said first linear pattern and said second linear pattern is commensurable with the minimum line width of said circuit pattern; and

an other line width of said first linear pattern and said second linear pattern is thicker than said one line width.

11. A mask comprising a measurement pattern for a measurement of a line width of a circuit pattern to be transferred onto a substrate via an optical system, wherein

said measurement pattern has a first linear pattern formed with a predetermined line width, and a second linear pattern which is superimposed on an image of said first

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linear pattern and has a line width different from that of said first linear pattern.

12 A mask according to claim 11, wherein said circuit pattern is formed in an area different from an area in which said first linear pattern and said second linear pattern are formed.

13. An exposure method comprising:
 an exposure step of transferring a circuit pattern of said mask of claim 12 onto a substrate via an optical system; and
 a measurement step of measuring prior to said exposure step, using said first linear pattern and said second linear pattern which are formed on said mask used in said exposure step, a line width of a pattern to be transferred to said substrate.

14. A method of manufacturing semiconductor devices comprising:
 an exposure step of transferring a circuit pattern of said mask of claim 12 onto a substrate via an optical system; and
 a measurement step of measuring prior to said exposure step, using said first linear pattern and said second linear pattern which are formed on said mask to be used in said exposure step, a line width of a pattern to be transferred to said substrate.

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